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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,843	10/20/2003	Pascal Ruiz	600203134-2	9903

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
LAU, TUNG S	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/687,843	RUIZ ET AL.	
	Examiner	Art Unit	
	Tung S Lau	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 10/20/2003 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by king et al. (U.S. Patent 6,478,401).

Regarding claim 1:

King discloses a method of determining an angle between a first direction of movement of a print head and a second direction of movement of a print media, said method comprising: printing an array of markings on said print media (abstract), said array of markings extending along said first direction and along said second direction (abstract), traversing a sensor device along said first direction (abstract), and detecting a signal corresponding to said plurality of

markings (abstract), identifying a plurality of peaks in said sensor signal (fig. 3) as a plurality of data co-ordinates (fig. 2); and obtaining an angle data describing an angle between said plurality of data co-ordinates and a reference data (fig. 2).

Regarding claim 10:

King discloses an algorithm for determining an angle between a line of movement of a printer head of a printer device, and a line transverse to a line of movement of a media sheet transported in said printer device, from a digitized optical sensor signal, said optical sensor signal comprising a plurality of peaks spaced apart at substantially regular spatial intervals, said algorithm carrying out the processes of (abstract) : identifying maximum peak values for each of said plurality of peaks (fig. 3); comparing said set of identified maximum peak values with a pre-determined threshold value (fig. 3); selecting a set of said peak values which exceed said pre-determined threshold value (Col. 1-2, Lines 36-35 ,fig. 3); and determining said angle by analyzing a spatial positioning of said plurality of peaks (Col. 1-2, Lines 36-35, fig. 2).

Regarding claim 12:

King discloses a printer device comprising: a media transport mechanism for carrying a sheet of media (Col. 1, Lines 11-35); a carriage transport mechanism capable of moving a carriage relative to a sheet of media (Col. 1, Lines 11-35), said carriage comprising a plurality of ink pens (Col. 1, Lines 11-35), and an optical sensor (Col. 1, Lines 11-35); a controller device for controlling said carriage transport mechanism and said media transport mechanism (Col. 1,

Lines 11-35), said controller device operable for, driving said carriage for printing an array of ink spots onto said print media loaded onto said media transport mechanism (Col. 1, Lines 11-35), controlling said carriage to move across at least one row of said printed ink spots (Col. 1-2, Lines 36-35), such that said sensor device generates a sensor output signal resulting from detection of said row of ink spots (Col. 1-2, Lines 36-35), such that said output sensor signal comprises a plurality of amplitude peaks each corresponding to a respective detected ink spot (fig. 3); and said controller device further comprising an algorithm operable for determining from said plurality of peaks, an angle between a line formed by said plurality of peaks and a reference line (fig. 3, 2), said angle representing an angle of skew of said media relative to said carriage (fig. 2, 3, Col. 2-3, Lines 50-45).

Regarding claim 14:

King discloses a data storage media containing program data for implementing an algorithm for determining an angle between a line of movement of a printer head of a printer device, and a line transverse to a line of movement of a media sheet transported in said printer device, from a digitized optical sensor signal, said optical sensor signal (Col. 1, Lines 10-35) comprising: a plurality of peaks spaced apart at substantially regular spatial intervals (fig. 3), said algorithm configured for carrying out the processes of: identifying maximum peak values for each of said plurality of peaks (fig. 3, Col. 2-3, Lines 50-54) , comparing said set of identified maximum peak values with a pre-determined threshold value (fig. 3),

selecting a set of said peak values which exceed said threshold value (fig. 3); and pre-determined determining said angle by analyzing a spatial positioning of said plurality of peaks (fig. 2, 3).

Regarding claim 2, King discloses identifying a trend line in said plurality of data co-ordinates; comparing said trend line with a reference data line (fig. 2); and obtaining an angle data describing an angle between said trend line and said reference data line (fig. 2); Regarding claim 3, King discloses a constant sensor signal (fig. 3); Regarding claim 4, King discloses plurality of amplitude peaks, each said amplitude peak corresponding to a detected said marking (fig. 2, 3); Regarding claim 5, King discloses plurality of peaks are spaced apart from each other at regular intervals (fig. 3); Regarding claim 6, King discloses ignoring peaks which are of a magnitude below a predetermined level (Col. 2-4, Lines 66-3); Regarding claim 7, King discloses detecting optical signal (Col. 2, Lines 50-65); Regarding claim 8, King discloses identifying a maximum value of each of said plurality of peaks (fig. 3); and applying a mathematical line fitting technique to said plurality of maximum values to obtain an equation representing said trend line (Col. 2-3, Lines 50-54, fig. 2); Regarding claim 9, King discloses identifying a maximum value of each of said plurality of peaks; applying a regressive line fitting technique to said plurality of maximum values to obtain an equation representing said trend line (Col. 3-4, Lines 34-28); Regarding claim 11, King discloses fitting a straight line equation to said set of selected peak values (fig. 3); and determining an angle data corresponding to an angle between said fitted

straight line and a line of zero gradient (fig. 5, 2); Regarding claim 13, King discloses an automatic pen alignment algorithm for carrying out an automatic pen alignment process in which a calibration is carried out to compensate for a pen variability, wherein said angle of skew is input into said automatic pen alignment algorithm (Col. 3-4, Lines 55-28).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL

John Barlow
Supervisory Patent Examiner
Technology Center 2800